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10/516,630	05/12/2005	Christian Kotter	4836-000012/NP	4564
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BLOOMFIELD HILLS, MI 48303				
EXAMINER				
SANDERS, JAMES M				
ART UNIT		PAPER NUMBER		
4151				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,630

Applicant(s)

KOTTER ET AL.

Examiner

JAMES SANDERS

Art Unit

4151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date 12/1/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 22 is objected to because of the following informalities: claim 22, line 2 recites "said vacuum tool if formed from" which appears to be a misstatement of the phrase "said vacuum tool is formed from". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 18, 22, 28, 36-37 can be rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay (GB 360 968 A, already of record).

For claim 18, MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92). Mackay does not explicitly teach a vacuum tool having the geometry of a three-dimensional molded part. However, the vacuum tool "screen" disclosed by MacKay is capable of being arranged into a three-dimensional geometry, and a mere change in shape would have been within the level of ordinary skill in the art. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include this well-known option which is well within his or her technical grasp, for the benefit of forming an object of three-dimensional structure.

For claim 22, MacKay teaches that the porous surface of said vacuum tool is formed from a material selected from the group consisting of a sintered powder metal, a ceramic, a metal foam, and a plastic foam or screen (page 1, lines 82-83, i.e. leave a deposit on the screen).

For claim 28, MacKay teaches that said binder is selected from the group consisting of natural rubber, polyurethane, polyacrylates, dispersions of acrylic esters, vinyl esters and isobutylene polymers and mixed polymers, or a vinyl acetate (page 2, lines 60-61, i.e. India-rubber latex).

For claims 36 and 37, MacKay teaches that a pulp is employed which further contains non-collagenous fibers and that said non-collagenous fibers are selected from the group consisting of cellulose, cotton and/or plastic fibers (page 2, lines 25-30, i.e. beaten vegetable fibers such as cotton, hemp, etc.).

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, and further in view of Dimiter (US Patent 4,287,252).

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that said casting skin is profiled.

However, Dimiter, in the same field of endeavor of reconstituted leather manufacture, teaches an improved casting skin that is profiled (Column 3, Lines 17-19, i.e. the web...is buffed on both sides to expose the natural leather particles).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Dimiter to obtain the benefit of a profiled skin.

6. Claims 20-21, 25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, and further in view of Barash, USP 3,542,910.

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that said casting skin is dried or that the drying step comprises the polymerization, polycondensation, cross-linking and/or film forming of the binder or said casting skin is provided with a surface finish or that the surface properties of the casting skin can be modified by embossing, grinding, plasma treatment, corona treatment, sand blasting or shot blasting.

However, Barash, in the same field of endeavor of reconstituted leather manufacture, teaches that said casting skin is dried and that the drying step comprises the polymerization, polycondensation, cross-linking and/or film forming of the binder (Column 4, Lines 71-75 and Column 5, Lines 1-20) and said casting skin is provided with a surface finish and that the surface properties of the casting skin can be modified by embossing, grinding, plasma treatment, corona treatment, sand blasting or shot blasting (Column 5, Lines 26-33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Barash for the benefit of drying the skin and finishing and modifying the surface.

Art Unit: 4151

7. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay.

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that said pulp contains leather fibers in an amount of from 0.1 to 10% by weight or said pulp contains leather fibers in an amount of from 0.5 to 2% by weight.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use pulp containing leather fibers in an amount of from 0.1 to 10% by weight or pulp containing leather fibers in an amount of from 0.5 to 2% by weight, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. One would have been motivated to perform routine experimentation for the purpose of optimizing process parameters. Please see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 for further details.

8. Claims 26-27 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, and further in view of Barash.

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that a pulp is employed which contains leather fibers of a length of from 0.1 to 15 mm or that a pulp is employed which contains leather fibers of a length of from 0.3 to 3 mm or that the casting skin has an average dry layer thickness of from 0.1 to 6 mm or that the casting skin has an average dry layer thickness of from 0.1 to 2 mm.

However, Barash, in the same field of endeavor of reconstituted leather manufacture, teaches that a pulp is employed which contains leather fibers of a length of from 0.1 to 15 mm (Column 2, Line 46, note 15 mm = 0.6 in) and that the casting skin has an average dry layer thickness of from 0.1 to 6 mm and that the casting skin has an average dry layer thickness of from 0.1 to 2 mm (Column 5, Lines 23-24, note 6 mm = 0.24 in and 2 mm = 0.08 in). Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MacKay in view of Barash, to employ pulp which contains leather fibers of a length of from 0.3 to 3 mm, since the methods lend themselves to optimization, and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or

workable ranges involves only routine skill in the art. One would have been motivated to perform routine experimentation for the purpose of optimizing process parameters. Please see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 for further details.

9. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, and further in view of Dimiter.

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that said binder is present in an amount of from 10 to 50% by weight, based on the dry weight or that said binder is present in an amount of from 15 to 30% by weight, based on the dry weight.

However, Dimiter, in the same field of endeavor of reconstituted leather manufacture, teaches that said binder is present in an amount of from 10 to 50% by weight, based on the dry weight or that said binder is present in an amount of from 15 to 30% by weight, based on the dry weight (Column 2, Line 21, i.e. 15% to 25% binder).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Dimiter since the methods lend themselves to optimization, and since it has been held that where the

general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. One would have been motivated to perform routine experimentation for the purpose of optimizing process parameters. Please see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 for further details.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay as applied to claim 18 above, and further in view of Sato et al (US Patent 4,919,189). MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that a mold with mobile slides for forming undercuts is employed.

However, Sato et al, in a method of casting involving a slidable die to form an undercut, teach the concept of employing a mold with mobile slides for the benefit of forming undercuts (Column 1, Lines 56-59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Sato et al for the benefit of being able to form undercuts.

10. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay as applied to claim 18 above, and further in view of Purser (US Patent 5,232,643).

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach that the casting skin is released from the surface of the vacuum tool and provided with a foam backing or injection-molded backing.

However, in the same field of endeavor of reconstituted leather manufacture, Purser teaches providing a casting skin with a foam backing or injection-molded backing (Column 3, Lines 1- 24, i.e. foam adheres directly to the rear face of cloth covering).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Purser for the benefit of being able to provide a foam backing.

11. Claims 38-40 can be rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, and further in view of Barash (US Patent 3,542,910).

MacKay teaches a method for the preparation of casting skins having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers, suspending agents, binders and optionally additives, to the porous surface of a vacuum tool;

applying a vacuum in the vacuum tool to deposit said pulp to a desired layer thickness along said porous surface to form a casting skin; and transferring the casting skin to a press tool and applying pressure to remove moisture and densify the casting skin (page 1, lines 19-92).

MacKay does not teach a part having a leather-like surface, comprising furniture, clothing, accessories, installation parts, veneers and trims and that said trim are selected from the group consisting of floor trims, pillar trims, trunk trims, door trims, dashboard trims, switches, gearshift levers, seat cushions, seat rests, doorknobs and steering wheel covers.

12. However, Barash, in the same field of endeavor of reconstituted leather manufacture, teaches a part having a leather-like surface, comprising furniture, clothing, accessories, installation parts, veneers and trims and that said trim are selected from the group consisting of floor trims, pillar trims, trunk trims, door trims, dashboard trims, switches, gearshift levers, seat cushions, seat rests, doorknobs and steering wheel covers (Column 5, Lines 47-49, i.e. can be used in place of high grade natural leathers in such applications as shoes, clothing, upholstery...).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Barash for the benefit of being able to provide any number of conventional parts having leather-like surfaces, including those as described above.

13. Note that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES SANDERS whose telephone number is 571-270-7007. The examiner can normally be reached on Monday through Friday, 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on 571-272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMS

/Angela Ortiz/

Supervisory Patent Examiner, Art Unit 4151